

Patent claims:

1. A method for the cost-effective production of dense fire-resistant moldings from wood fibers or other lignocellulosic fibrous materials or particles ("fibrous materials" below),
5 in which, in the dry method, inorganic materials ("water glass" below) based on potassium and/or sodium silicates are added to the fibrous materials at a mixing temperature of 30°C - 95°C,
10 and in which a fibrous nonwoven is formed from this mixture, is compressed to a density of 350 kg/m³ - 1250 kg/m³ and is cured in a closed press in the compressed state at a temperature
15 above 80°C.
2. The method as claimed in claim 1, characterized by a mixing temperature of 40°C - 75°C.
- 20 3. A method for the cost-effective production of dense fire-resistant moldings from wood fibers or other lignocellulosic fibrous materials or particles ("fibrous materials" below),
in which, under a water vapor atmosphere,
25 inorganic substances ("water glass" below) based on potassium and/or sodium silicates are added to the fibrous materials at a mixing temperature of 105°C - 180°C, and in which a fibrous nonwoven is formed from this mixture, is compressed to a density of 350 kg/m³ - 1250 kg/m³ and is cured in a closed press in the compressed state at a temperature
30 above 80°C.
4. The method as claimed in claim 3, characterized by a mixing temperature of 110°C - 150°C.
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5. The method as claimed in one of the preceding claims, characterized in that the fibrous nonwoven to be compressed has a fiber moisture < 25%.

6. The method as claiming one of the preceding claims, characterized in that the water glass is added to the fibrous materials in an amount of 5% - 40%, preferably 10% - 30%, based on absolutely dry fibrous materials.
7. The method as claiming one of the preceding claims, characterized in that at least a proportion of the total quantity of water glass to be added is added to the chips intended for the production of the fibrous materials before and/or after their defibering.
- 15 8. The method as claimed in one of the preceding claims, characterized in that the water glass is fed directly into the cooking process disintegrating the fibrous materials or into a transport element of a refiner defibering the chips.
- 20 9. The method as claimed in one of the preceding claims, characterized by the use of a water-glass adhesive.
- 25 10. The method as claimed in one of the preceding claims, characterized in that, for the purpose of faster curing, conventional additives and active substances are added to the water glass before after its addition to the fibrous materials.
- 30 11. The method as claimed in claim 10, characterized in that the auxiliary and active substances consist of acid formers.
- 35 12. The method as claimed in claim 11, characterized in that the auxiliary and active substances used are carbon dioxide formers.